

<110> Searle/Monsanto  
Phippard, Deborah  
Vasanthakamur, Geetha  
Dotson, Stanton  
Ma, Xiao-Jun

<120> Osteoarthritis tissue-derived nucleic acids, polypeptides,  
vectors, and cells

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2559

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 <212> DNA  
 <213> Homo sapiens

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19

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20

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<213>      Homo sapiens

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<400>      26

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<212>      DNA
<213>      Homo sapiens

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<223>      unsure at all n locations
<400>      27

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 <212> DNA  
 <213> Homo sapiens

<400> 45

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<210> 46  
 <211> 167  
 <212> DNA  
 <213> Homo sapiens

<400> 46

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<210> 47  
 <211> 1689  
 <212> DNA  
 <213> Homo sapiens

<400> 47

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39

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<211>      184
<212>      DNA
<213>      Homo sapiens

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<400> 48

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tgcaatccag cttccaaga aggctgggga tataacaaac aaagctacaa aagagaagga 180
aagt 184

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<210>      49
<211>      259
<212>      DNA
<213>      Homo sapiens

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<400> 49

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ggtagagactg gtgctgtggg agtctctgga gcccctgggc cccctggctc ccctggcccc 180
gctggtccaa ctggcaagca aggagacaga ggagaagctg gtgcacaagg ccccatggga 240
ccctcaggac cagctggag 259

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<210>      50
<211>      245
<212>      DNA
<213>      Homo sapiens

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<400> 50

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tcccaggagc atccggcccc attggtctct gaggtcccc cggcctcccc ggacctgctg 180
gccccaaagg agccaaagga gccacaggcc caggcggacc caaggagag aaggggtgtgc 240
agggc 245

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 <212> DNA  
 <213> Homo sapiens

<400> 51

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 agcaaggaag cactggggag gaattccatt tccagactgg agggagagat tcctgcacta 240  
 tgcgtcccag cagcttgagg caaggtgctg gagaagtctg gcttcgctgc gactgccgca 300  
 acacagacca gacctactgg tgtgagtaca gggggcagcc cagcatgtgc caggctttcg 360  
 ctgctgaccc caaatcttac tggaatcaag ccctgcagga gctgaggcgc cttcaccatg 420  
 cgtgccaggg ggccccggtg cttaggccat ccgtgtgcag ggaggctgga ccccaggccc 480  
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<210> 52  
 <211> 281  
 <212> DNA  
 <213> Homo sapiens

<400> 52

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 ccacaacccc ctgaaaagca tcccggacaa tgccttcag tcctttggca gatacctgga 180  
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 aaccacgctg aaacacgtcc atttgagaa caaccgcttg a 281

<210> 53  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 53

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 gcagcccccc ggcgtacgt acgtgacgg tgaagccctc cagccccgcg cggtgtctca 180  
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 ccttctactt aa 252

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 <211> 2723  
 <212> DNA  
 <213> Homo sapiens

<400> 54

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 <213> Homo sapiens  
 <400> 55

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 cccagaactg ccaactgccac agcgacctgc agcacgtcat ctgcgacaag gtggggctgc 180  
 agaagatccc caaggtgtca gagaagacca agctgctcaa cctacagcgc aacaacttcc 240  
 cggtgctggc tgccaattcg ttccgggcca tgccgaacct cgtgtcattg cacctgcagc 300  
 actgccagat 310

<210> 56  
 <211> 274  
 <212> DNA  
 <213> Homo sapiens  
 <400> 56

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 actgactgct tatggaaaag aacagataat gatatccgtc tctgtcttc acccaccact 180  
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 gttccatcct ataagcttgg caggaggata aaga 274

<210> 57  
 <211> 153  
 <212> DNA  
 <213> Homo sapiens  
 <400> 57

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 cacaaaacta atcattattt aaagttattt ccg 153

<210> 58

<211> 225  
 <212> DNA  
 <213> Homo sapiens

<400> 58  
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 tccccaaaa aacgaaacaa aacaaaaaaa caaccttttt aagagttgat ggctactcat 180  
 ttgatctgcc tcctctgctg aatcaattag gaattttttt ttttt 225

<210> 59  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

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 gaatcattat ttttttccca aggagaaaac cgggggtaaag ggagggaagc aattcaattt 180  
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 aaccaggtt ctgctgcaag cttggaagga gcctggagcg ggagaaagct aacttgaaca 420  
 tgacctgttg catttgga gttctagc 448

<210> 60  
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 <212> DNA  
 <213> Homo sapiens

<400> 60  
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<210> 61  
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 <212> DNA  
 <213> Homo sapiens

<223> unsure at all n locations  
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 gccactagtc tgtgtccac agtcagtgtc acccagtga caggcattac ccccatct 180  
 ggaaccagcc tggccccaag ggctacggca taactcagta ccaggtagag ttggcccccac 240  
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<210> 62  
 <211> 252

09765231-011301

<212> DNA  
<213> Homo sapiens

<400> 62

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atcttactac acctttactt tggaaaactt caaacctgta ctaaaataga atagggcagt 180  
gaacctccct gcctgcaccc atcactcagc gtcaacattg atcaactcat gggcaatctt 240  
gttttatcta tt 252

<210> 63  
<211> 218  
<212> DNA  
<213> Homo sapiens

<400> 63

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<210> 64  
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<212> DNA  
<213> Homo sapiens

<400> 64

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gaaaagcata attctgagct aaatattctg cctaaagaat ctctttcaca taatecttcc 180  
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<212> DNA  
<213> Homo sapiens

<400> 65

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<210> 66  
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<212> DNA  
<213> Homo sapiens

<400> 66

ggaaactcca ggctcctggt ttttcctggt gcggggaaag agaagactga aacatctgtg 60

tgacattcag atttttcaga ggtctgccca agggctctggt ttttattttg cttgaatata 120  
 agttctgaca ggaaagggca ccagggttgcg gggtcattga aaacaaagtt gacagtttag 180  
 attagcaggc actcaccatg gtccctcccc ctccttcagc atgaaaacca gcaggagaaa 240  
 ttc 243

<210> 67  
 <211> 250  
 <212> DNA  
 <213> Homo sapiens

<400> 67  
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 gaggtttttt tcccccaaaa cagaagcaaa taaacattat tttgttcctt tgggtataact 120  
 ttcattgaac agttatatag tgctttggaa gtatcaagtc ctgtgctaaa taaatgctgg 180  
 agatacaaaa gccctgacc tcagaatgtc atagtcttgg ggtaagaaaa aattcattct 240  
 gtgcccagg 250

<210> 68  
 <211> 213  
 <212> DNA  
 <213> Homo sapiens

<400> 68  
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 tcaagatcaa gttatgatac ctttaccac agtcatacat tcttttggaa ctttgcacaa 120  
 tagtcatatg ttctttttaga actttacact tctattcttt attgccctgt attataattg 180  
 cttgtatgcc tgactcctct acatgactgt atg 213

<210> 69  
 <211> 198  
 <212> DNA  
 <213> Homo sapiens

<400> 69  
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 attaacagaa gatgtggaga tacagaagaa actagaaaat atctcacaat caatacatct 120  
 ttcaagcagt caatcatttg tcaactcatat tgctttttta aaccagctt tacatggaag 180  
 gaataaatgg aactccag 198

<210> 70  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 70  
 aaaaaaagga aaaaaaaat tgccttaagt catatagatt gtaccagcag ctctcacagt 60  
 gtggactttg gacttctagg agtccccagg aaccttttag gggatgccta cgaggaggtc 120  
 caaactgttt tcataagaac gctaagggtc tatgtgcctt tttaactcat tctctcacga 180

gtgttcagtg gagttttcca gaggtctgt gacatggtga catcactctg ataattagta 240  
 gaatgtgtgt gtgtgtactt ttgttttcta gaatattgta aattgataga tttagggtat 300  
 aaatatatgt gttttcagag attaactcag tttgctgcca gtgcttctac tgtgctctta 360  
 ctggctattt tcatttatac ctgctgctga gtc 393

<210> 71  
 <211> 216  
 <212> DNA  
 <213> Homo sapiens

<400> 71  
 ctctacttgt atgaccctag gaatagattg gaatactgca gaggaccaa gctgaggcat 60  
 gctaaacagc tgcttggagg tggaagcaag ttcagtcacc tactcagctt cctctctcca 120  
 ccaccagtt cctccctcag taccacatta tttttttctt ctgcttttca ttaacctaac 180  
 tcctctcatc agtacaacca tttctttatt ctctaa 216

<210> 72  
 <211> 166  
 <212> DNA  
 <213> Homo sapiens

<400> 72  
 caaatattta acagaactaa tggaactatt ttagtatgct tccccctggg ctggagtgta 60  
 ggctaagact ttattttaa acaggatgga tgggtgtttg actgaagatg cctccaactt 120  
 ttgctcttct gttttttatt tgatgtgctc aagcttctaa ttcctt 166

<210> 73  
 <211> 240  
 <212> DNA  
 <213> Homo sapiens

<400> 73  
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 aattattttt ccacattgaa acactttgca gacacaaata tctatgaaa gatgctttgt 120  
 cagccactgt gccttttttt ctgtgaagac tcaacggatg tgtgtgtttg tatgtttgtt 180  
 aacagttaca tatgtttgta tgagtgtata tatatatctg tgtgtgtgta tctctaactg 240

<210> 74  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 74  
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 ggggaccgca ttccagagtc agtgactctg tgaagcacc acatctacct cttgccacgt 120  
 tcccacgggc ttgggggaaa gatggtgggg accaaggcct ggggtgttct cttcctggtc 180  
 ctggaagtca catctgtgtt ggggagacag acgatgctca cccagtcagt aagaagagtc 240  
 cagcctggga agaagaaccc cagcatcttt gccaaacctg ccgacaccct g 291

<210> 75  
 <211> 283  
 <212> DNA  
 <213> Homo sapiens

<400> 75

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 cctgcagtgc cagctctcaa tcgcacaggg gaccagggc ctggcccctc catccagaaa 180  
 acctatgacc tcacccgcta cctggagcac caactccgca gcttggtgtg gacctatctg 240  
 aactacctgg gcccccttt caacgagcca gacttcaacc ctc 283

<210> 76  
 <211> 139  
 <212> DNA  
 <213> Homo sapiens

<400> 76

ccttcgtgaa gtcgcaaac ctctctgagc ccagtcatt gctagtaaga cctgcctttg 60  
 agttggtatg atgttcaagt tagataacaa aatgtttata cccattagaa cagagaataa 120  
 atagaactac atttcttgc 139

<210> 77  
 <211> 669  
 <212> DNA  
 <213> Homo sapiens

<400> 77

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 gtgtgagcat ttaagaagca tcctctgcca agaccaaag gaaagaagaa aaagggccaa 180  
 aagccaaat gaaactgatg gtacttgttt tcaccattgg ggctaacttt gctgctagga 240  
 gttcaagcca tgcctgcaaa tcgcctctct tgctacagaa agatactaaa agatcacaa 300  
 tgtcacaaac ttccggaagg agtagctgac ctgacacaga ttgatgtcaa tgtccaggat 360  
 catttctggg atgggaaggg atgtgagatg atctgttact gcaacttcag cgaattgctc 420  
 tgctgccccaa aagacgtttt ctttggaaca aagatctctt tcgtgattcc ttgcaacaat 480  
 caatgagaat cttcatgtat tctggagaac accattcctg atttcccaca aactgcacta 540  
 catcagtata actgcatttc tagtttctat atagtgcaat agagcataga ttctataaat 600  
 tcttacttgt ctaagacaag taaatctgtg ttaaacaagt agtaataaaa gttaattcaa 660  
 tctaaaaaa 669

<210> 78  
 <211> 486  
 <212> DNA  
 <213> Homo sapiens

<400> 78

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 ccagcctgga cccaggcccg gagggaatga ggaagcaaag aagaaggcct gggaacattg 180  
 ttggaaaccc ttccaggccc tgtgcgcctt tctcatcagc ttcttccgag ggtgacaggt 240  
 gaaagacccc tacagatctg acctctcctt gacagacaac catctctttt tatattatgc 300  
 cgctttcaat ccaacgttct cacactggaa gaagagagtt tctaatacaga tgcaacggcc 360  
 caaattcttg atctgcagct tctctgaagt ttggaaaaga aaccttcctt tctggagttt 420  
 gcagagttca gcaatatgat agggaacagg tgctgatggg cccaagagtg acaagcatac 480  
 acaact 486

<210> 79  
 <211> 752  
 <212> DNA  
 <213> Homo sapiens  
 <223> unsure at all n locations  
 <400> 79

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 gccccgcnc caccaccccc ancnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnngccac tgctgcaccg gtctcgttag atggagatct caatctgggg tcggtgggta 180  
 aggagagctg caagcccagc tgctgagcag ggggtgggac atgaaccagc ggatggagtc 240  
 cagcagggga gtgggaaagt gggcttgtgc tgctgcctag acagtaggga tgtaaaggcc 300  
 tgggagctag accctcccca agcccatcca tgcacattac ttagctaaca attagggaga 360  
 ctctgaaggc caggccctgt gctgggcaca tagctgtgat cacagcagac agggtcgctg 420  
 ccctgatggc gcttacattc cagtgggtct aatgaccata tcttaggaca cagatgtgcc 480  
 caggagggtg gtgtcactgc acaggaagta tgaggacttt agtgtcctga gttcaaattc 540  
 tgattcagga actcaciaag ctatgtgacc ttacaccagt cacttaactt gttagccatc 600  
 cattatcgca tctgcaaaat ggggattaag aatagaatct tggggttagt gtggagatta 660  
 gattaaatgt atgtaagaca cttggcacia aacctgnac atagtaaagg ctcaataaaa 720  
 acaagtgcct ctactgggc tttgtcaaca cg 752

<210> 80  
 <211> 552  
 <212> DNA  
 <213> Homo sapiens  
 <223> unsure at all n locations  
 <400> 80

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 cttaaaaaan aacaataatt tgtgaattac caccaaaagg caatggcagt cctacattta 120  
 agaatagagc tatgcaaact ctgttaaaaa ctatagggaa aacttatatt agaacttttg 180  
 atatatacta aaatactgat tatcttaatc acattttccc cagagataaa cattgagaga 240  
 acgaaagcca aagtgtcatt taagagagat atatatgaaa aagtaacatt aatatataga 300

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actttacat caccagccgt agttgataga aaatattagt ttcagaatta ccctccttta 360  
 aaaaataaga gactatttgt tttcttttaa tttctatgaa taaaagaaat ttttaaaaac 420  
 tttaaaattt taaatattag tcaaaatact ttttaagtcc tgagtgccta caggtagttg 480  
 ttaaaaaaat ttaaggcca ggcattggtg ctcgctcaca cctataatcc taggatctgg 540  
 gaggtcgagg ca 552

<210> 81  
 <211> 135  
 <212> DNA  
 <213> Homo sapiens

<400> 81  
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 ctagtgtcta caaggaacc gctgccacca cgaggaataa cacagtgtc ttacagcctg 120  
 ttccaagtgt ggctt 135

<210> 82  
 <211> 225  
 <212> DNA  
 <213> Homo sapiens

<400> 82  
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 acacacgtat ctgggtgtgc attggaatca tccgaaaaa ccaaggcttg cattgcata 120  
 ctatctgtg tctgtgaag gagccctgtc tgtgtgcca aggaagtgc atccttgcca 180  
 agggctgtcc ctgttgagg agatgaagga gcctgtcta tgtgc 225

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